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EXAMINER

GILLESPIE, BENJAMIN

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

*Note*

1. Continuation of Section 11: Applicants' remarks filed 7/18/2008 with respect to the rejection of claims 8-11, 13-14, and 22-28 as being unpatentable over Kube ('212) in view of Greco ('839), and in further view of Carlson et al ('110) have been considered but are not persuasive. In particular, applicants' argue that the claimed invention is patentable over the prior art because the prior art does not

- i) teach or suggest the claimed amounts of (A) crystalline polyester polyol, (B) amorphous polyester polyol, and (C) polycarbonate polyol,
- ii) the polyester of Greco isn't hydroxyl functional, and therefore one would not be motivated to include the polycarbonate in the reaction system of Kube, and
- iii) finally, applicants alleged unexpected results when applying the claimed adhesive to metallic, specifically aluminum substrates, which the prior art does not read on.

2. Concerning issue i), applicants' argue that the examiner's calculations set forth in the final office action mailed 4/24/2008 are incorrect and instead, when based on the teachings of Greco, the amounts of (A), (B), and (C) would be present in amounts consisting of 25-50 wt%, 0-25 wt%, and 50 wt%. These ranges are based on the disclosure on column 4 lines 54-60, which states that

The use of polycarbonates of the present invention instead of polyadipates in the same formulations enable excellent results... even when the polycarbonate is used in hot-melt compositions which include, even in a relevant proportion, a polyester (up to 50% by weight).

3. Applicants have applied this disclosure by including 50 wt% of polycarbonate relative to all the polyester of Kube, i.e. amorphous + crystalline. However in doing so, applicants' have appeared to ignore another relevant section of Greco, which states that this 50/50 relationship is

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not based on all types of polyester, **but instead solely on crystalline polyester** (emphasis added) (Col 3 lines 31-41).

4. With the proper interpretation of Greco, one of ordinary skill would understand that the amount of amorphous polyester in Kube would not change since only the amount of crystalline polyester is modified, i.e. the range of amorphous polyester would remain between 0 and 50 wt% based on all polyol. Instead when the original amount of crystalline polyester now consists of 50 wt% polycarbonate, the amount of polycarbonate and crystalline polyester ranges from 25 wt% to 50%, i.e.

(A) 25-50 wt%

(B) 0-50 wt%

(C) 25-50 wt%

5. For example, if 25 wt% of amorphous polyester is present, then the polycarbonate and crystalline polyester would each be present by 37.5 wt%, thus the examiner maintains that the prior art satisfies the claimed amounts of (A), (B), and (C).

6. Regarding issue **ii**), applicants assert that the relied upon disclosure of example 15 is not sufficient to establish the polyester contains hydroxyl groups since said polyester is "of phthalic and isophthalic acid... and this polyester comprises only dicarboxylic acid and does not contain any polyol." Contrary to applicants' assertions, the examiner would like to point out that a "polyester of phthalic and isophthalic acid" still contains polyol since polyesters are **the reaction product of a polycarboxylic acid and hydroxyl-functional material** (emphasis added). This is WIDELY known within the art, and one of ordinary skill would have understood that only listing carboxylic acids does not exclude the presence of the hydroxyl-functional material.

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Furthermore, this position is only further reinforced by Greco teaching that said polyester is present relative to isocyanate in a **NCO:OH** ratio, i.e. isocyanate groups are reacted with **hydroxyl-functional groups**.

7. Finally, regarding applicants' remarks concerning the unexpected properties regarding the adhesion with aluminum substrates, this position is not commensurate in scope with claim 8 since the hot-melt is not limited to an adhesive, and the substrates are not limited to aluminum, or even metallic materials. Hence the examiner does not find applicants' remarks persuasive and the rejection is maintained.

/Rabon Sergent/

Primary Examiner, Art Unit 1796